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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,269	09/26/2003	You-Jun Hsieh	2450-0545P	4908

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EXAMINER

LESPERANCE, JEAN E

ART UNIT PAPER NUMBER

2629

DATE MAILED: 10/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,269

Applicant(s)

HSIEH, YOU-JUN

Examiner

Jean E. Lesperance

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-7 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed August 21, 2006 is entered and claims 1 and 3-7 are pending.
2. The allowable subject matter of amended claim 1 is withdrawn and a rejection is provided below.

Response to Arguments

3. Applicant's arguments with respect to claims 1 and 3-7 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 3-5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent # 5,717,428 ("Barrus et al.") in view of US Patent # 6,525,743 ("Patrick et al.").

Regarding claim 1, Barrus et al. teach a computer keyboard, for inputting data and capable of being disconnected from a computer system (a portable computer

keyboard capable of stand-alone, automatic and host modes of operation with plurality of different host computers (column 1, lines 12-14)), comprising:

- a standard press key, having a plurality of keys for entering character data (the portable computer keyboard Fig.1 (10));

- a keyboard microcontroller (MCU) for generating a character code corresponding to the key (the keyboard matrix Fig.4 (340);

- a monitor, disposed on the operating panel of the keyboard (the small LCD display Fig.1 (80));

- a monitor microcontroller (MCU) for driving the monitor to display a bitmapped graphic pattern of the character entered from the standard press key (the microcontroller Fig.3 (15));

- a memory unit for saving the character code (RAM Fig.3 (130); and

- a power supply unit for supplying the electric power required by the computer system (batteries Fig.3 (115));

said the keyboard controller (MCU) sends the character code stored in the memory unit to the computer system after the keyboard resuming the connection with the computer system, and to said character code returned from the computer system, and then sends the pattern to the monitor microcontroller (MCU) for driving the monitor to display the pattern on the monitor (the microcontroller 230 may send signals to display virtually any characters on the LCD display 200, normally the information displayed will correspond substantially to at least a portion, or block, of the data stored in the RAM memory 250. Since the RAM 250 is intended to store text information input

through the keyboard, the LCD display 200 will preferably display an "active" portion or block of text being entered or edited by the user (column 10, lines 5-12) and (a portable computer keyboard capable of being operated in a stand-alone mode, an automatic mode and a conventional mode. In stand-alone mode, information entered is stored in an on-board memory buffer, and may be edited by using a set of predetermined editing keys in conjunction with a display mounted on the device. In automatic mode, the contents of the on-board memory buffer are transmitted, by a keystroke emulation technique, to an attached host computer via a conventional keyboard connector cable (column 16, lines 7-16). Accordingly, the prior art teaches all the claimed limitations with the exception of providing the bitmapped graphic pattern.

However, Patrick et al. teach the design of graphics drivers such as display drivers for displaying such bitmaps (column 1, lines 20 and 21).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the bitmaps as taught by Patrick et al. in the keyboard display disclosed by Barrus et al. because this would provide a means for identifying the bitmap to the application program, such as a pointer to the DIB's memory location (column 3, lines 39 and 40).

Regarding claim 3, Barrus et al. teach said the memory unit saves the bitmapped graphic pattern corresponding to the character code, such that when the standard press key enters a character, the keyboard microcontroller (MCU) being read and the monitor microcontroller (MCU) driving the monitor to display the bitmapped graphic pattern of the character (the microcontroller 230 determines if it is a control or

instruction key, or if it is a data key. In response, if the key press is determined to be data, any conventional technique, such as a look-up table, may be used to store the corresponding ASCII value in RAM memory 250 and display it on the LCD display 200. If the key depressed is determined to be an instruction or other control character, the microcontroller 230 may execute the appropriate associated set of instructions corresponding to the depressed key. As will be described in much greater detail later, the information received by scanning of the keyboard matrix 340 allows data to be stored and edited, as well as providing instructions to the microcontroller 230 to control the sequence of operation or processing (column 8, lines 16-30)).

Regarding claim 4, Barrus et al. teach said the bitmapped graphic pattern in the memory unit is updated when the keyboard resuming its connection with the computer system (If the queue was found to be empty in Step 820, the dumping flag is tested in Step 730 and if it is not set, the procedure loops back to Step 730 to scan the keyboard; otherwise, the procedure branches to Step 850 where the display is updated to indicate the transmission has been completed, the dumping flag is cleared and the procedure loops back to Step 730 to scan the keyboard (column 15, line 66 to column 16, line 5)).

Regarding claim 5, Barrus et al. teach said the memory unit is a memory built in the computer keyboard (RAM Fig.3 (130) is built within the keyboard and it is not detachable.

Regarding claim 7, Barrus et al. teach the power supply unit is a battery (batteries Fig.3 (115)).

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5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent # 5,717,428 ("Barrus et al.") in view of US Patent # 6,525,743 ("Patrick et al.") and further in view of US Patent Application # 20020109675 ("Kuan").

Regarding claim 6, Barrus et al. fails to teach said the memory unit is a detachable memory card.

However, Kuan teaches a memory card Fig.1 (30) which detachable from the keyboard 100.

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the memory card as taught by Kuan in the portable computer keyboard disclosed by Barrus et al. because this would provide a computer peripheral device comprising a keyboard in which a memory card reading device is incorporated whereby the peripheral device serves as both an input device and a storage device (paragraph 0005).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:00AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691.

Any response to this action should be mailed to:

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Commissioner of Patents and Trademarks

Washington, D.C. 20231

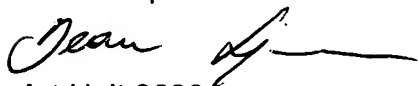
or faxed to:

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance


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Date 10/16/2006

